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| 10/624,808 | 07/22/2003 | David Alan Bailey | ROC920030220US1 | 6643 |
| 46296 | 7590 | 07/12/2006 | EXAMINER | |
| MARTIN & ASSOCIATES, LLC | | | DOAN, DUC T | |
| P.O. BOX 548 | | | ART UNIT | PAPER NUMBER |
| CARTHAGE, MO 64836-0548 | | | 2188 | |

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,808

Applicant(s)

BAILEY ET AL.

Examiner

Duc T. Doan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2006.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14-16 and 19 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-11, 14-16, 19 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set for in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/4/06 has been entered.

Claims 1-21 have been presented for examination in this application. In response to the last Office Action. Claims 12-13,17-18,20-21 have been canceled. Claims 1,4-6,9,10-11,16,19 have been amended. As a result, claims 1-11,14-16,19 are now pending in this application.

Claims 1-11,14-16,19 are rejected.

Applicant's arguments filed 5/4/06 have been fully considered but they are not persuasive. Therefore, the rejections from the previous office action are respectfully maintained, with changes as needed to address the amendments.

U.S.C. 112, first paragraph

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Independent claims 1,4-6,9-11,16,19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

in the relevant art that the inventor(s), at the time the application was filed, has possession of the claimed invention.

The claims recite a limitation “..by inhibiting dispatch of tasks to the at least one logical partition without notifying the at least one logical partition”. Examiner searches the specification and cannot find any disclosure that require “without notifying the at least one logical partition”. In fact, the word notify is not found in the specification.

The claims recite an act of ”inhibiting dispatching of tasks”. However, it is unclear which component in the specification generates and dispatching the tasks originally, and which component in the specification inhibits the tasks to the at least one logical partition...without notify the at least one logical partition.

Without any explicitly disclosure from the specification, the “without notifying the at least one logical partition” limitation is interpreted as, there is not any special requirement for notifying the at least one logical partition, because the allocation of i/o resources for the logical partitions are maintained in data structures in a memory that is readily accessible by other programs at any time. Thus, when an i/o re-configuration event occurs, this event is signaled to all impacted users’ processes to stop generating any new task, the at least one logical partition just completes its pending tasks without requiring to receiving the notify the at least one logical partition on this event.

All dependent claim(s) are rejected as having the same deficiencies as the claims they depend from.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11,14-16,19 rejected under 35 U.S.C. 103(a) as being unpatentable over Tarui et al (US Pub 2002/0112102) and in view of (Bealkowski et al (US 6330656).

As for claim 1, Tarui describes an apparatus comprising: at least one processor (Fig 1: #10, #11); a memory coupled to the at least one processor (Fig 1: #30); a plurality of logical partitions defined on the apparatus (Fig 2c: #331,332 partitions 0,1); a partition manager residing in the memory and executed by the at least one processor, the partition manager managing the plurality of logical partitions (Paragraphs 3, 84 partition control program) the partition manager comprising:

an I/O reconfiguration mechanism that reconfigures identified I/O (Tarui's page 3, paragraph 53); and a logical partition suspend/resume mechanism that suspends at least one of the plurality of logical partitions before the I/O reconfiguration mechanism reconfigures the identified I/O by inhibiting dispatch of tasks to the at least one logic partition without notifying the at least one logical partition and waiting until all pending tasks in the at least one logical partition are complete, and that resumes all suspended logical partitions after the I/O reconfiguration

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mechanism reconfigures the identified I/O by enable dispatching of tasks to the at least one logical partition (Tarui's page 5, paragraphs 83,84 describes the partition control program works with the operating system OS to stop using the I/O adapter, therefore inherently, the partitions that correspond to the particular I/O adapter will be suspended and once the I/O adapters are reconfigured; Tarui's paragraph 82, these partitions will be allow to be resumed; Tarui's paragraph 25). Tarui does not describe the pending tasks aspect of the claim. However, Bealkowski's column 9 lines 62 to column 10 line 5 describes a method to disassociating a partition to an i/o slot includes quiescent the device, completing all pending works and preventing any new work from occurring to the device. It would have been obvious to one of ordinary skill in the art at the time of invention to include the quiescent device method as suggested by Bealkowski in Tarui's system to allow completing pending data thereby the partition and the i/o device are disassociated in a manner that data integrity is protected. (Bealkowski's column 10, lines 12-15). As for the claim limitation "without notifying the at least one logical partition", Bealkowski's column 10 lines 1-5 clearly describes steps that the operating system quiesces the device by all pending works in the i/o device processing to completion and the impacted user processes not generating any new tasks; Bealkowski teaches these steps (preventing any new work, completing pending work) can be done by a common operating system (the common operating system on which the logical partitions and their "guest" soft wares are operated on) or can be done indirectly by "any other appropriate software capable of orchestrating the operation and effecting the devices", for example partitioning program or guest soft wares (see Bealkowski's column 12 lines 15-25).

As for claims 2-3, the claims recite wherein the logical partition suspend/resume mechanism suspends all of the plurality of logical partitions (claim 2); wherein the logical partition suspend/resume mechanism suspends only the logical partitions that own the identified I/O (claim 3). Tarui describes the access partition discriminator for allocation i/o adapters to the partitions (Tarui's page 5, paragraph 81). Tarui further describes a method of stop using i/o adapters in any number of partitions, reconfiguring i/o adapters in the partitions via access partition discriminator, and allowing the OS to start using the i/o adapters (Tarui's page 5, paragraph 84).

As for claim 4, the claim rejected based on the same rationale as in the rejection of claim 1. Tarui further describes the partition manager performing the steps of: (1) detecting when identified I/O requires reconfiguration (Tarui's page 5, paragraph 83 describes a dynamic hot-plugging of i/o adapters);

Claims 5,6,10,11,16,19 rejected based on the same rationale as in the rejection of claims 1-3.

Claim 7 rejected based on the same rationale as in the rejection of claim 2.

Claims 8,14 rejected based on the same rationale as in the rejection of claim 3.

Claims 9,15 rejected based on the same rationale as in the rejection of claim 4.

Response to Arguments

Applicant's arguments in response to the last office action has been fully considered but they are not persuasive. Examiner respectfully traverses Applicant's arguments for the following reasons:

As to the remarks on pages 11-12 concerning the independent claims 1,4-6,9-11,16,

A) The new limitation “inhibitingwithout notifying the at least one logical partition..” is unclear (see the rejection in 112 1st paragraphs). Examiner respectfully requests applicant to describe in detail how the above claim’s limitation is carried out in the instant application.

B) Applicant remarks “In both Tarui and Bealkowski, the logical partition themselves inhibit the dispatch of tasks”. Examiner respectfully disagrees. Bealkowski teaches the new tasks are inhibited to be generated/dispatched can be done either by a common operating system or any a common operating system (the common operating system on which the logical partitions and their “guest” soft wares are operated on) or can be done indirectly by “any other appropriate software capable of orchestrating the operation and effecting the devices”, for example partitioning program or guest soft wares (see Bealkowski’s column 12 lines 15-25). Thus Bealkowski teaches these steps can be accomplished in a various programs including common operating systems, guest software in a partition such as guest’s operating system or any program such as partition control program.

In a consistent manner, Tarui’s paragraphs 64,84 describes that it is the common partition control program that manages stop generating new tasks for the impacted users’ processes.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD


Mano Padmanabhan 6/23/11

Supervisory Patent Examiner

TC2188

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER